

This listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Original) A method for removing interfering agents from a polymeric membrane layer comprising:
  - providing an electrochemical sensor comprising an electrode and a composite membrane said composite membrane comprising at least one polymeric membrane;
  - providing an electrical source in electrical contact with said electrode; and
  - applying an electrical potential to said electrode sufficient to cause at least a portion of the interfering agents in said composite membrane to be removed.
2. (Original) The method of claim 1, wherein said electrical potential comprises a range of about 0.1 to 0.8 V versus an on-board reference electrode.
3. (Original) The method of claim 1, wherein said range of electrical potential is applied for about 10 to 200 seconds.
4. (Original) The method of claim 1, wherein said electrical potential comprises about 0.4 V versus an on-board reference electrode and is applied for about 50 seconds.
5. (Currently amended) A method for restoring the functional properties of an electrochemical sensor, said method comprising:
  - providing an electrochemical sensor system, said electrochemical sensor system comprising:
    - an electrochemical sensor card comprising at least one electrochemical sensor, said electrochemical sensor comprising an electrode and a composite membrane said composite membrane comprising at least one polymeric membrane;

an electrochemical sensor apparatus in electrical contact with the electrochemical sensor card, the electrochemical sensor apparatus configured to measure electrical signals from the electrochemical sensor card and to provide an electrical potential to the electrochemical sensor; and  
a reservoir containing an electropolymerizable monomer in a solution in fluid communication with the electrochemical sensor card;  
contacting the electrochemical sensor with the solution; and  
applying an electrical potential of sufficient strength and sufficient duration to cause at least a portion of the electropolymerizable monomer in the solution to polymerize onto the polymeric membrane.

6. (Original) The method of claim 5, further comprising: adding the electropolymerizable monomer to a calibrating solution to form an electropolymerizable monomer solution.

7. (Original) The method of claim 5, wherein said electrical potential comprises a range of about 0.1 to 0.8 V versus an on-board reference electrode.

8. (Original) The method of claim 5, wherein said range of electrical potential is applied for about 30 seconds to one hour.

9. (Original) The method of claim 5, wherein said electrical potential comprises about 0.5V versus an on-board reference electrode and is applied for about 3 minutes.

10. (Original) The method of claim 5, further comprising: applying an additional electrical potential to the electrode of sufficient strength and sufficient duration to remove at least a portion of interfering agents in said polymeric membrane.

11. (Currently amended) The method according to claim 10, wherein the electrical potential applied to remove at least a portion of interfering agents is applied in the range of about 0.1 to 0.8V and for a duration about 10-200 seconds.

12. (Original) A method for restoring the functional properties of an electrochemical sensor cartridge comprising:

connecting an electrochemical sensor cartridge comprising an electrochemical sensor to an electrochemical sensor apparatus, the electrochemical sensor comprising an electrode and a composite membrane comprising at least one polymeric membrane;

contacting the electrochemical sensor with an electropolymerizable monomer solution; and

applying an electrical potential of sufficient strength and sufficient duration to cause at least a portion of the electropolymerizable monomer solution to polymerize onto the polymeric membrane.

1[[4]]3. (Currently amended) The method of claim 1[[3]]2, further comprising: adding an electropolymerizable monomer to a calibrating solution to form said electropolymerizable monomer solution.

1[[5]]4. (Currently amended) The method of claim 1[[3]]2, wherein said electrical potential comprises a range of about 0.1 to 0.8 V versus an on-board reference electrode.

1[[6]]5. (Currently amended) The method of claim 1[[3]]2, wherein said range of electrical potential is applied for a range of time from about 30 seconds to 1 hour.

1[[7]]6. (Currently amended) The method of claim 1[[3]]2, wherein said electrical potential comprises about 0.5V versus an on-board reference electrode and is applied for about 3 minutes.

1[[8]]7. (Currently amended) The method of claim 1[[3]]2, further comprising: applying an additional electrical potential of sufficient strength and sufficient duration to the electrode to cause removal of at least a portion of the interfering agents in said polymeric membrane.

1[[9]]8. (Currently amended) The method according to claim 1[[8]]7, wherein the electrical potential applied to cause removal of at least a portion of the interfering agents is applied in the range of about 0.1 to 0.8V for a duration about 10-200 seconds.